

Dynamic Bandwidth Management Responsive to Access Link State in Redundant Network Topologies

Abstract of the Disclosure

[0079] Methods, apparatuses and systems allowing for dynamic bandwidth management schemes responsive to the state of a plurality of access links in redundant network topologies. In one embodiment, the present invention provides a bandwidth management device that periodically queries routing systems associated with access links, conceptually grouped into a virtual access link, to monitor that load of the access links and, depending on the detected load, adjust the configuration of the bandwidth management device to avoid overloading one or more of the access links. Embodiments of the present invention increases network efficiency and help network traffic to flow more smoothly with higher throughput. In one embodiment, the dynamic link control functionality is invoked when any given access link reaches a threshold capacity level. Assuming that network traffic will scale in the same ratio as presently observed, the present invention calculates the maximum traffic that can be let through so that no network interface or access link is overloaded.